Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Redesignation of the 17.7-19.7 GHz	)	
Frequency Band, Blanket Licensing of	)	
Satellite Earth Stations in the 17.7-20.2	)	IB Docket No. 98-172
GHz and 27.5-30.0 GHz Frequency	)	RM-9005
Bands, and the Allocation of Additional	)	RM-9118
Spectrum in the 17.3-17.8 GHz and	)	
24.75-25.25 GHz Frequency Bands for	)	
Broadcast Satellite-Service Use	)	

COMMENTS OF UTC

Pursuant to Section 1.415 of the Commission's Rules, UTC, The Telecommunications Association, hereby submits its comments on the Notice of Proposed Rulemaking (NPRM), FCC 98-235, released September 18, 1998, in the above-captioned matter.[1] In this proceeding, the FCC proposes to reallocate the 17.7-19.7 GHz band among various services in order to better accommodate their operational and technical characteristics.

UTC is an international not-for-profit trade association representing the telecommunications interests of approximately 1,000 electric, gas and water utilities and natural gas pipelines. UTC's members range in size from large multi-state utilities serving millions of consumers, to small rural electric cooperatives and water districts serving only a few thousand consumers each. All utilities rely on telecommunications services and

facilities in carrying out their underlying public service obligations, and many operate private operational fixed microwave facilities, licensed under Part 101 of the Commission's Rules. UTC is therefore pleased to have this opportunity to comment on the Commission's proposals.

At the outset, UTC agrees with a fundamental premise underlying the NPRM, namely, that conditions must be imposed on satellite use of bands allocated for terrestrial fixed use due to the practical limits on sharing between these services. Although a significant amount of spectrum has been allocated to the satellite services for shared use with terrestrial fixed services, history has shown that the FCC's liberal satellite licensing policies, and the way satellite systems are deployed, effectively choke-off the ability of terrestrial systems to expand in order to meet vital communications requirements.

The nation's utilities and pipelines rely extensively on private microwave systems to meet their communications needs, including -

- Protective relaying -- the ability to remotely detect and isolate electric transmission lines experiencing "fault" (outage) situations, within milliseconds, in order to prevent further property damage or personal injury.
- Forwarding of critical telemetry data between and among a utility's substations, operations control centers, generating stations, pumping stations and other utilities.
- Controlling mobile radio base stations and other radio systems used for load control, environmental monitoring, and nuclear plant communications.
- Long- and medium-haul remote data/voice communications.

[1] By Order, DA 98-2231, released November 2, 1998, the comment and reply comment deadlines were extended to November 19 and December 21, 1998, respectively.

Utilities and pipelines rely on private microwave systems to meet these requirements for a number of reasons:

- Comparable services with the same level of reliability are not available from commercial carriers.
- Because of operating territories that can extend over extremely wide areas, including in some cases multiple states, it would be necessary for utilities and pipelines to contract with a number of carriers to secure end-to-end service throughout the area, with attendant concerns with maintaining control and operational integrity.
- As providers of essential public services (electric, natural gas, water, and petroleum products), utilities and pipelines are part of the nation's critical infrastructure. By minimizing their dependency on public telecommunications networks and services, service can be more easily and promptly restored in the event of a widespread natural or man-made disaster which disrupts public service delivery.[2]
- Although utilities and pipelines are deploying fiber optic communications facilities where economically and practically feasible, private microwave is the communications medium of choice where the enormous capacity of fiber cannot be justified, or where right-of-way is not available.

In short, microwave is one of several communications technologies and services used by utilities and pipelines to meet their communications requirements.

Unfortunately, users of terrestrial fixed microwave systems have been subjected to a number of rule and policy decisions in recent years that are frustrating their ability to effectively use this spectrum-efficient technology. The 4 GHz band is effectively worthless for new terrestrial microwave paths due to the proliferation of unlicensed satellite receive-only earth stations. In ET Docket No. 92-9, the FCC reallocated to "emerging technologies" the 1850-1990 MHz (1.9 GHz) and the 2110-2140/2150-2200

MHz (2.1 GHz) bands -- some of the most important communications bands used by utilities, pipelines, railroads, and state and local government agencies. At the time this spectrum was reallocated, the FCC acknowledged the important role played by these terrestrial fixed systems, and provided both a mechanism for migrating these microwave systems to alternative bands, and rechannelized other microwave bands to better accommodate the types of systems that will need to be relocated from the 2.1 GHz band.[3]

In ET Docket No. 98-142, the Commission is proposing to reduce the amount of spectrum available for terrestrial use in the 6 GHz band -- the very band identified by the Commission as the most logical replacement band for systems that are currently licensed at 1.9 or 2.1 GHz, or which would have been licensed in those bands but for the reallocation of these bands for "emerging technologies."[4]

UTC is a member of the Fixed Wireless Communications Coalition (FWCC), and fully supports its comments in this proceeding. Specifically, UTC agrees with FWCC that allocation decisions, or band segmentation plans, must take into account the current and long-range spectrum needs of terrestrial services. In addition, the Commission should reexamine its licensing policies for the satellite services which effectively allow a satellite user to foreclose access to an entire spectrum allocation across the entire orbital arc, without regard to whether that particular user will ever use the entire bandwidth or licensed azimuth. Such licensing policies reward inefficient use of the spectrum, and

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[2] Recent and well-publicized outages of commercial satellite service dramatized the widespread problems that can occur when such a communications network is brought down by a single point of failure; *i.e.*, the satellite itself.

[3] Second Report and Order in ET Docket No. 92-9, 8 FCC Rcd 6495 (1993).

[4] See Comments of UTC, filed September 21, 1998, in ET Docket No. 98-142.

effectively deny access to "shared" bands by terrestrial systems that are specifically engineered, coordinated and licensed to use the minimum bandwidth to meet demonstrated communications requirements.

The FCC has proposed to grandfather any terrestrial fixed services operations for which licenses were granted or whose applications were pending as of the release date of the NPRM.[5] UTC joins the FWCC in urging careful consideration of the need to adequately protect any such grandfathered systems from interference. Conversely, to the extent satellite receivers would be susceptible to interference from terrestrial fixed systems, UTC opposes the suggestion in the NPRM that satellite operators should have the right to compel relocation of terrestrial fixed systems.

As was abundantly documented in the record of ET Docket No. 92-9, relocation of fixed microwave systems is not something that can be approached casually. These systems are used to support critical operations and in many cases are part of very large networks. UTC urges the FCC to take the safest course and permit voluntary relocation negotiations to resolve any such situations. If the satellite community can demonstrate a need for a more systematic relocation process, then UTC urges the FCC to adopt guidelines modeled after those adopted in Docket 92-9, and to require, at a minimum, that satellite operators reimburse all relocation expenses and provide replacement facilities that are comparable to the original system.

[5] NPRM, para. 40.

WHEREFORE, THE PREMISES CONSIDERED, UTC respectfully requests the Federal Communications Commission to take action in this docket consistent with the views expressed herein.

Respectfully submitted,

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